

Title (en)

A wind turbine rotor blade assembly with a ring insert in the blade root

Title (de)

Windturbinen-Rotorschaukelanordnung mit einem Ringeinsatz am Schaufelfuß

Title (fr)

Ensemble de pale de rotor d'éolienne avec un insert annulaire dans le pied de pale

Publication

EP 2728171 A3 20180411 (EN)

Application

EP 13190534 A 20131028

Priority

US 201213664587 A 20121031

Abstract (en)

[origin: EP2728171A2] A rotor blade assembly 22 for a wind turbine 10 includes a ring insert 100 in the blade root section 104. The blade root section 104 has a span-wise end portion defined by an inner circumferential component 122 and an outer circumferential component 124, with a radial gap 136 between the components. The ring insert 100 is disposed in the radial gap 136 and is bonded to the inner and outer circumferential components 122,124. The ring insert 100 has an inner circumferential surface 126 and an outer circumferential surface 128, wherein at least one of the inner or outer circumferential surfaces 126,128 has a radially varying cross-sectional profile that increases bonding surface contact area between the inner or outer circumferential surface 126,128 and the respective circumferential component 122,124 of the blade root section 104 as compared to a constant radius cross-sectional profile.

IPC 8 full level

F03D 1/06 (2006.01)

CPC (source: EP US)

F03D 1/0658 (2013.01 - EP US); **F03D 1/0675** (2013.01 - EP); **Y02E 10/72** (2013.01 - EP US)

Citation (search report)

- [X] WO 2012140049 A2 20121018 - LM WIND POWER AS [DK], et al
- [X] FR 2863321 A1 20050610 - OCEA SA [FR]
- [X] WO 2012140039 A2 20121018 - LM WIND POWER AS [DK], et al

Cited by

DE102014008558B4; CN108713098A; DE102014008558A1; US11319922B2; US11976625B2; WO2017101944A1; WO2020169393A1; WO2020193753A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2728171 A2 20140507; **EP 2728171 A3 20180411**; CA 2830128 A1 20140430; US 2014119926 A1 20140501

DOCDB simple family (application)

EP 13190534 A 20131028; CA 2830128 A 20131017; US 201213664587 A 20121031